

416
REPORT NO. [REDACTED]
CD NO. 25X1A
20 FEB 1952
11
INFORMATION REPORT

COUNTRY USSR (Leningrad Oblast)
SUBJECT Svir III Hydro Power Plant and Lock
at Svirstroi 25X1C

NO. OF ENCLS. 4
(LISTED BELOW)

SUPPLEMENT TO
REPORT NO. [REDACTED]

25X1X

1. Location:

[REDACTED] southern bank of the Svir River near Svirstroy (33°44'E/60°
Leningrad Oblast.

2. Installations:

a. The seriously damaged power plant and dam have been under reconstruction since 1945. The fifth and last turbine was put into operation in 1948. The reconstruction of the lock was completed but the road on the dam was still under construction and the dam still being repaired.

b. Power plant:

The plant was about 100 x 35 meters to the west side of the dam. Its installations were modern and of American and German origin. Of the five turbines, three were 8 meters in diameter and 15 meters high, and two 6 meters in diameter and somewhat lower. The capacity was not known but Soviets said that the plant was able to supply all Leningrad with power. One power transmission line supported by steel masts led to Lodeinoe Pole. The 80 x 40 meter transformer plant opposite the power plant, at the other side of the water exit, had a railroad connection.

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c. Lock:

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Southeast of the power plant was 16 to 20 meters wide. The difference in water level was 10 to 15 meters. The canal leading to the lock branched off the Svir River about 200 meters upstream from the power plant and went into the Svir about 400 meters downstream from the lock. Shipping was intensive. For location see Annex 1.

d. Construction work force:

About 800 PWs.

3. Turbines:

The turbine chamber had four Kaplan turbines of the Voith-Heidenheim Firm (identified by source who had worked as an engineer with that firm until 1934). Export plates on the turbines indicated that they have been delivered regularly. Turbines capacity, 25,000 kws.

4. Lock:

The gates of the approximately 20 meter-wide lock were opened in an upstream direction and formed an angle if closed. It took 15 minutes for a ship to pass upstream and 11 minutes to pass downstream. A swing bridge for the railroad line with the pivot point on the island formed by Svir River and canal was west of the lock. For lock gates see Annex 2.

5. The power plant had three turbines, about 8 meters in diameter.

6. The lock installation had a total length of 500 meters, the gates were 20 meters wide. The walls were constructed of 50 cm thick natural stones. The lock had no artificial bottom as could be seen when the lock chamber was empty.

Comment:

Location and layout of the Svir III Power Plant and the lock are reported for the first time. The reproduction seems to approach facts. Previous reports reported four turbines and a total capacity of 100,000 kws. The varying statements, data given by Source II are probably correct. Although most of the produced power is directed to Leningrad where there is no local industry, the plant importance is exaggerated as the plant is far from being able to cover the full power requirements of the city.

2 Annex: 2 sketches on ditto.

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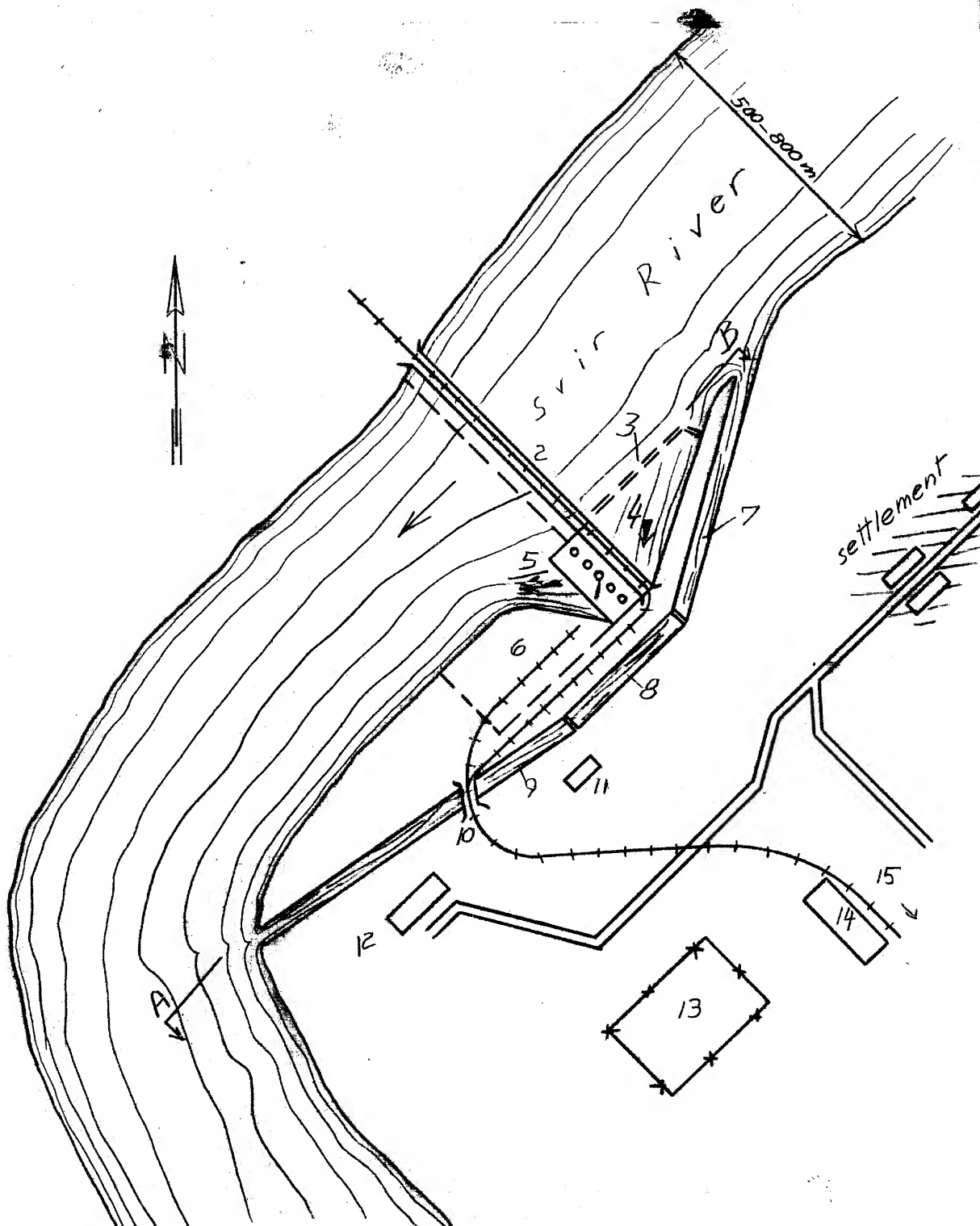
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1/Annex 1
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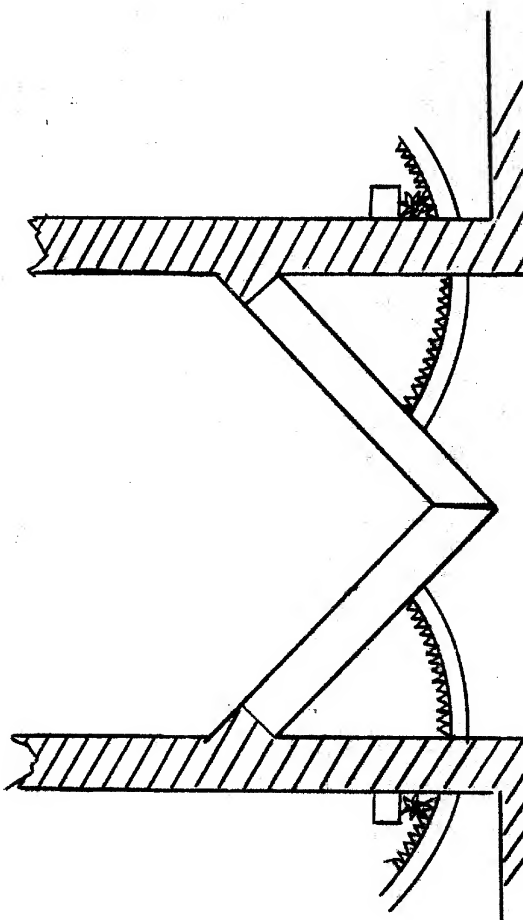
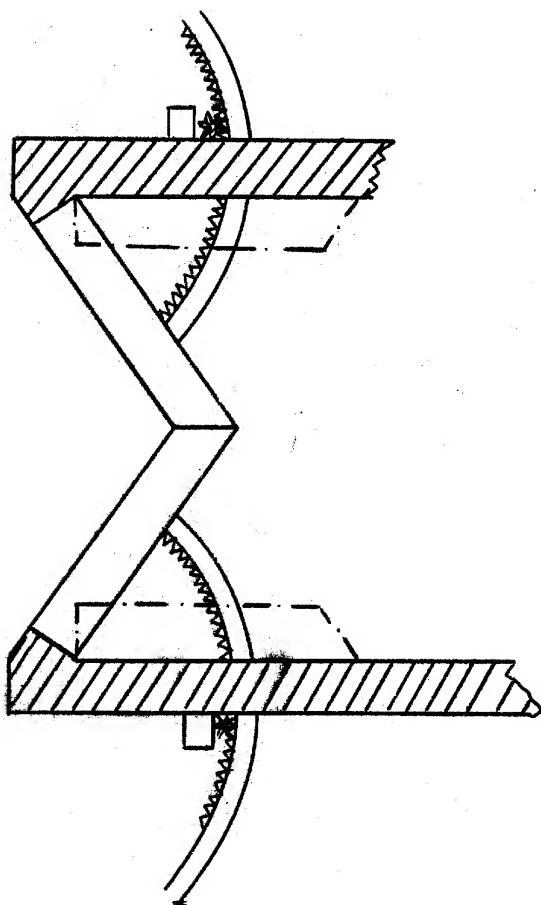
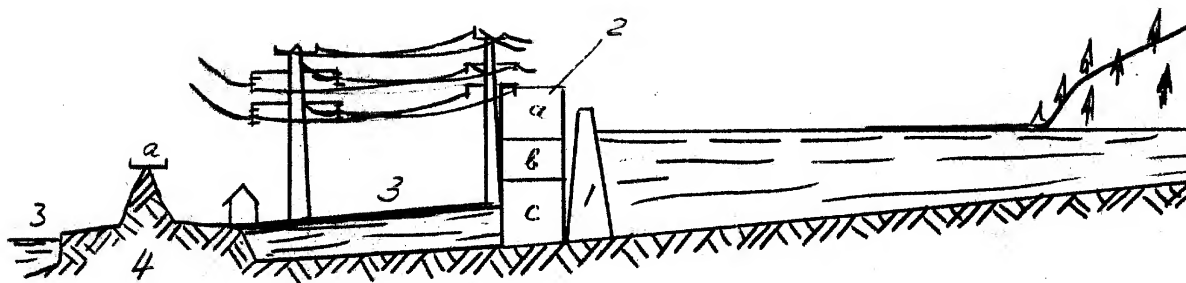
Legend to Annex 1:

- 1 Power plant with three large and two smaller turbines
- 2 Retaining dam
- 3 Stone dam bordering the water intake
- 4 Grates
- 5 Water exit
- 6 Outdoor transformer station
- 7 Entrance canal to lock
- 8 Lock
- 9 Exit canal
- 10 Railroad bridge over the exit canal with railroad connection to transformer station and tracks across the dam
- 11 Slag-concrete plant
- 12 Administration and kitchen
- 13 PW camp No 7135/5
- 14 Iron foundry
- 15 Direction of Lodeinoe Pole

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not to scale
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1/Annex 2
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Legend to Annex 2:

A Cross section

- 1 15 meter-high dam, 5 meters wide on top
- 2 Power plant
 - a Administration
 - b Switching room
 - c Turbine chamber
- 3 Svir River
- 4 Island
 - a Pivot point of bridge

B Lock gates. Two pairs of gates, electrically driven, via a traction gear rim, open upstream.

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